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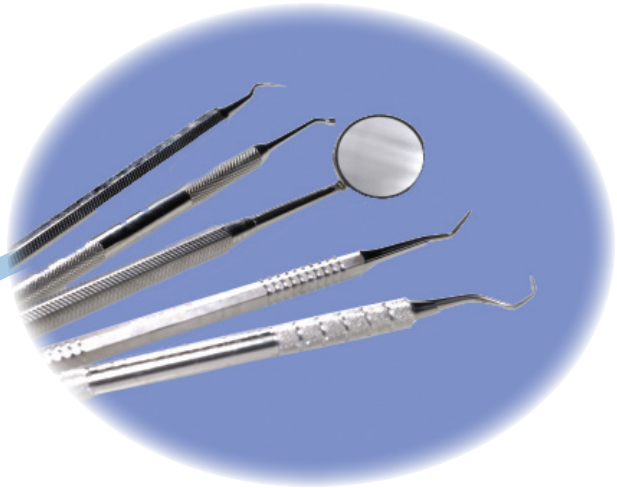

Expanding Access to Dental Care for People Living with HIV/AIDS: Service Utilization and Costs

Boston University School of Public Health
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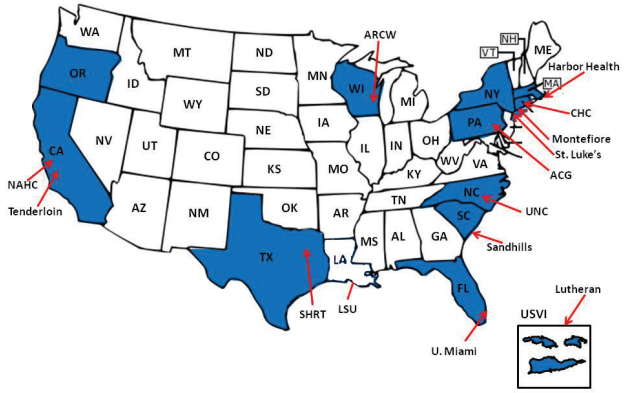


The location of fourteen sites that implemented innovative models of dental care, contributing data to this report.

Introduction

This document provides information to help policymakers and providers plan for the expansion of oral health services for people living with HIV/AIDS (PLWHA) in their state, city, region or service area. The utilization and cost estimates are derived from service utilization data collected by fourteen of fifteen demonstration sites that participated in the Health Resources and Services Administration's Special Project of National Significance (SPNS) Program from 2006 – 2011. The sites were funded to develop and implement innovative models of dental care, with the goal of increasing access to comprehensive oral health services for HIV-positive patients. The program models are described more fully elsewhere.[1]

It is well documented that dental care is less accessible than medical care, and financial barriers to care are the most common obstacle.[2,3] Needs assessments conducted by states and metropolitan areas often identify dental care as one of the greatest unmet needs among PLWHA. Dental insurance is not as common in the private sector as medical insurance, and dental coverage through state Medicaid programs for low-income and disabled individuals varies widely across states, with some states offering no coverage at all. As state budgets are scrutinized for every penny during times of economic hardship, adult dental benefits in the Medicaid program are often one of the first services to be cut.[4]

While the Affordable Care Act is expected to expand access to health insurance nationally, it will not cover adult dental benefits. With the impending reauthorization of the Ryan White Treatment Act, which is a vital source of oral health funding for PLWHA, it is important to be able to estimate the cost of ongoing and expanded oral health coverage in order to maintain existing services and address known gaps in care.

To determine how to bridge this gap in care, policymakers and providers need to know what

[1]Rajabiun S, Bachman SS, Fox JE, Tobias C, Bednarsh H. (2011). A Typology of models for expanding access to oral health care for people living with HIV/AIDS. *Journal of Public Health Dentistry*. Doi:10.1111/j.1752-7325.2011.00249.x

[2]Marcus M, Maida CA, Coulter ID, et al. A longitudinal analysis of unmet need for oral treatment in a national sample of medical HIV patients. Am J Public Health. Jan 2005;95(1):73-75.

[3]U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. National Institutes of Health. Rockville, MD. 2000:1-13.

[4]Otto, M. Medicaid dental cutbacks taking a toll across the U.S. http://www.drbicuspid.com/index.aspx?sec=sup&sub=pmt&pag=dis&ItemID=305865, DrBicuspid.com last accessed on 03/12/11

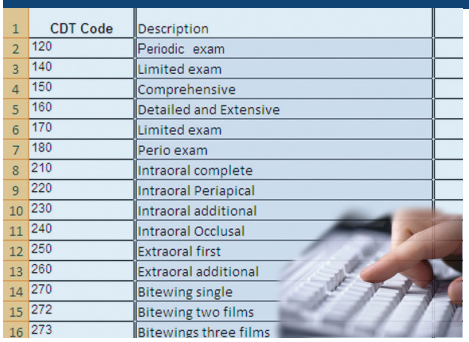
it will cost to expand oral health services for PLWHA. For example, policymakers need to know:

- How many new people need care?
- What services should be covered?
- How much should providers be paid?
- What funds are available to pay for care?

Below we provide estimates of service utilization and costs based on the decisions made in answer to these questions.

Note: The estimates provided in this report pertain to the funding of services on a fee-for-service or per-patient basis; they do not include important facility, equipment, or other start-up costs.

Methods



	CDT Code	Description
1		
2	120	Periodic exam
3	140	Limited exam
4	150	Comprehensive
5	160	Detailed and Extensive
6	170	Limited exam
7	180	Perio exam
8	210	Intraoral complete
9	220	Intraoral Periapical
10	230	Intraoral additional
11	240	Intraoral Occlusal
12	250	Extraoral first
13	260	Extraoral additional
14	270	Bitewing single
15	272	Bitewing two films
16	273	Bitewings three films

Data were collected using CDT codes for 2,178 patients over a period of one to two years and were collapsed into a single record for each patient.

We used dental service utilization data from fourteen demonstration programs to produce these estimates. The sites contributing data to this report were located in San Francisco, CA (2); Eugene, OR; Longview, TX; Green Bay, WI; Miami, FL; Jefferson, SC; Chapel Hill, NC; Chester, PA; New York City, NY; Norwalk, CT; Cape Cod, MA; and St Croix, USVI. Clinics were housed in universities, hospitals, community health centers (CHC), and AIDS service organizations (ASO).

Data were collected using CDT codes for 2,178 PLWHA over a period of 12 - 24 months. The CDT codes were grouped by service category (diagnostic, preventive, restorative, etc.).

Costs were assigned to each CDT code using publicly available dental fee schedules. We used four different fee schedules to create three cost scales. The least expensive fee schedule is from the Miami/Dade County Eligible Metropolitan Area and is based on the Florida Medicaid fee schedule (for children), using multipliers because fees for adults are typically higher than the fees for children. The second fee schedule is from Delta Dental and represents a negotiated rate. Where Delta Dental did not list a price for a particular CDT code we used a fee schedule from Guardian Dental that also represented a negotiated rate and was similar to the schedule from Delta Dental. The fourth schedule is based on the 2009 American Dental Association's Annual Survey of Dental Fees. Where an individual fee schedule did not list a price for a service, we used a price from the next closest fee schedule.

It is important to underscore that service costs and fee schedules vary widely across the country. Thus, the costs described in this report are intended to reflect the range of costs, rather than the actual costs in any given community or state.

We then reviewed the CDT codes reported by each program to identify which programs provided comprehensive care, which provided intermediate care, and which provided basic care. Basic care was provided at all fourteen sites (n=2,178) and included diagnostic care, preventive care, restorations excluding crowns, non-surgical periodontal care, and adjunctive care. Intermediate care was provided at twelve sites (n=1,773) and included all levels of care except crowns, endodontics, and fixed prosthodontics. Comprehensive Care was provided at eight sites (n=842) and included crowns, endodontics, and fixed prosthodontics. The cost of basic care was calculated by adding up all the charges associated with basic care and dividing by 2,178 patients, the total number of patients who had access to basic care. The cost of intermediate care was calculated by adding the cost for removable prosthodontics, periodontal surgery, and oral surgery to the cost for basic care, for the study patients at the twelve sites that provided this level of care. This total was divided by the number of people enrolled in sites that provided intermediate care, or 1,773. Comprehensive care was calculated by adding the cost of endodontics, crowns, and fixed prosthodontics to the cost for intermediate care for the study patients at the eight sites that provided comprehensive care. This total was divided by the number of people enrolled at sites that provided comprehensive care, or 884. This yielded three levels of care: basic, intermediate, and comprehensive, and three price schedules: low, intermediate, and high, for a range of nine different potential costs, depending on the choices made regarding comprehensiveness of care and the type of fee schedule used.

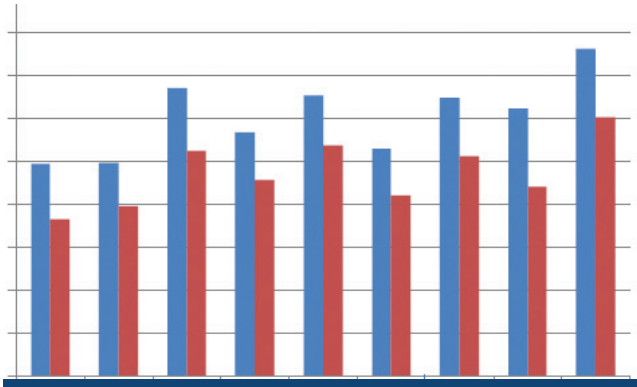
Definitions

Comprehensive Care: Nearly all dental services including crowns, endodontics, and fixed prosthodontics. Note that in this sample, none of the patients received orthodontic services or implants, even those who received comprehensive care.

Intermediate care: Diagnostic care, preventive care, restorative care excluding crowns, periodontal care including surgery, oral surgery, removable prosthodontics and adjunctive services (emergency care, consultations, night guards, etc).

Basic care: Diagnostic services, preventive services, restorative care excluding crowns, periodontal care excluding periodontal surgery, and adjunctive services.

In the final step, we differentiated between patients who were newly entering care and those who had been enrolled in care for one year. Many (though not all) of the patients who had been out of care for a year or more needed a lot of services. However, their service needs declined during their second year of care, particularly with a drop in the number of restorations provided. Thus, we also conducted all the above-mentioned steps for the 1,053 patients from fourteen sites who were enrolled in the study for a full two years, examining their second year of service utilization and costs separately from the first year. This resulted in 18 different cost estimates.



These data are provided to help planning bodies and providers decide how to purchase dental services and determine which services they can offer to people living with HIV/AIDS.

Results

On average, we estimate costs to a payer or the revenue to a provider to be $965.44 per person for the first year of care and $259.19 per person for the second year of care, using the medium fee schedule and offering an intermediate level of care. This reflects a course of treatment where patients move from restoration of function in Year 1 to maintenance of oral health in Year 2.

This is an average; the range is much wider. The difference in costs between the Florida Medicaid fee schedule and the ADA usual and customary fee schedule is 300% to 400%. For example, comprehensive care in Year 1 ranges from $603.31 - $1,829.13 per person depending on which fee schedule is used. Intermediate care in Year 1 ranges from $383.34 - $1,435.09 per person and basic care ranges from $216.99 - $833.52 per person.

It is important to note that this is an *average* cost, spread out over 2,178 people from fourteen different sites located in twelve different cities, states or territories. A small number of individuals (17%) came in for one initial visit and never came back. Others may have moved out of the area after receiving a few visits, and still others may have been hospitalized, incarcerated, or died. All of these different circumstances feed into the average cost. However, these circumstances are likely to exist in any EMA, state, or provider service area.

Programs collected dental service utilization data on 1,053 individuals for a full 24 months. In all cases, the cost of the care delivered in this second year dropped significantly, by more than two-thirds. This decline was driven primarily by a reduction in the costs for diagnostics services, restorations, removable prosthetics, and oral

Table 1. Average Cost of Services/Person for the First Year of Treatment Using Three Levels of Care and Three Different Fee Schedules

	Fee Schedule		
Average price/person	Very low	Medium	High
Comprehensive Care	$603.31	$1,271.32	$1,829.13
Intermediate Care	$383.24	$965.44	$1,435.09
Basic Care	$216.99	$541.16	$833.52

surgery. The drop in costs for preventive and adjunctive care were not as steep, because these needs are ongoing. In Table 2 we can see that the cost of care in the second year is also highly variable and depends on the level of care delivered/provided and the fee schedule used. Thus, comprehensive care ranges from $231.67 - $546.44; intermediate level of care ranges from $104.83 - $349.42 and basic care ranges from $55.88 - $191.89.

These data are provided to help planning bodies and providers decide how to purchase dental services and determine which services they can offer to PLWHA. The data can also help in planning what it might cost to expand care to a larger number of individuals, or what it might cost to add certain services to the benefit package. Given limited funds, there are many different scenarios for trade-offs between the scope of covered services and the number of people that can be covered for services. The three coverage scenarios described above, comprehensive, intermediate and basic, are simply examples of coverage types. Each planning body will need to develop or adopt its own fee schedule and then work with dental clinicians to craft an affordable benefit package that makes the most sense in their area. For example, while a particular grantee might want to provide comprehensive care, it might not be able to provide the most expensive dentures or it might need to limit the number of crowns a particular individual could receive in a year. A provider might want to offer dentures but may need to shop around to find a place that offers reasonable laboratory fees.

Another area to consider is the ability to offer a fee schedule based on Medicaid rates (which vary from state to state where they exist at all) and find dentists willing to provide care at those rates. Some communities with large dental schools or federally qualified health centers may be able to offer care at those rates. Some community health centers may have sliding fee schedules or offer a negotiated per-visit charge, which can be very high or quite reasonable. Providers in rural communities or HIV-dedicated providers with a limited payer mix might not be able or willing to offer care at those rates. These are all factors to be considered by planning bodies.

Finally, we have provided two years' worth of data for those individuals who enrolled in the SPNS oral health programs for two or more years. As is very clear from the data, costs dropped dramatically in the second year. Part of this is due to the intensive work done in the first year to treat pain and infection, but part of the decline is also due to patients dropping out of oral health care or moving out of the service area. As programs strive to improve retention in care and focus on prevention, the cost of routine care is likely to stabilize for individuals who receive care on a regular basis as compared to those who limit their treatment to episodic or emergency care.

Table 2. Average Cost of Services/Person for the Second Year of Treatment Using Three Levels of Care and Three Different Fee Schedules

	Fee Schedule		
Average price/person	Very low	Medium	High
Comprehensive Care	$231.67	$393.02	$546.44
Intermediate Care	$104.83	$237.02	$349.42
Basic Care	$55.88	$126.19	$191.89

For more information about the HRSA SPNS Innovations in Oral Health Care Initiative, read ***Expanding Access to Oral Health Services for People Living with HIV/AIDS: Lessons Learned***, available at http://hdwg.org/sites/default/files/resources/OralHealthHIV.pdf

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